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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/552,151

10/07/2005

Vittorio Patrono

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EXAMINER

TRIEU, THAI BA

ART UNIT

PAPER NUMBER

3748

MAIL DATE

DELIVERY MODE

01/16/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/552,151

Applicant(s)

PATRONO, VITTORIO

Examiner

Thai-Ba Trieu

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17-20, 26 and 27 is/are rejected.
- 7) ☒ Claim(s) 21-25 and 28 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This Office action is in response to the amendment filed on November 08, 2007. Applicant's cooperation in correcting the informalities in the drawing and specification is appreciated.

Claims 1-16 were cancelled; claims 17-18, 20, 26, and 28 were amended.

In view of newly discovery prior art, the indicated allowable subject matter of claims 17-19, 21-25, and 28 has been withdrawn. A new Non-Final rejection set forth below.

### ***Specification***

The disclosure is objected to because of the following informalities:

In the Brief Description of the Drawings, each figure of the drawings should be labeled/numbered with -- Figure 5a -- or -- FIG. 5a --; -- Figure 5b -- or -- FIG. 5b --; -- Figure 6a -- or -- FIG. 5a --; -- Figure 6b -- or -- FIG. 6b --; -- Figure 6c -- or -- FIG. 6c --; -- Figures 5a -5b -- or -- FIG. 5a-5b --; -- Figure 6a-6c -- or -- FIG. 6a-6c --etc...

Applicant is required to provide a brief description for each figure, such as a brief description for Figure 5a, a brief description for Figure 5b, a brief description for Figure 6a, a brief description for Figure 6b, a brief description for Figure 6c, etc...

Appropriate correction is required.

Applicant should provide a marked-up copy and a clean copy of the whole specification, since in the original application filed on October 07, 2005, there appears no indicated/numbered paragraphs as being used in the amendments to the specification filed on November 06, 2007.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

***Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chauville (Pub. Number FR 23 24 870 A), in view of Kehl (Patent Number 3,311,094).***

Chauville discloses an internal combustion rotary engine comprising  
an external rotor (2) mounted for rotation about a first axis (o') and  
an internal rotor (1) within the external rotor (2), mounted for rotation about a  
second axis (o) offset from the first axis (o'),

said rotors (1, 2) being mutually restrained and synchronized by synchronization gear wheels (pinions A, B, B', C, C', D) disposed in a common housing so that the rotors rotate in the same direction and at the same rotational speed on their respective axes (See Fgires1-2);

wherein the external rotor (2) contains a timing system (52, 53, 54, 55, and 56), discharge valves (7), and spark plugs (6), thereby functioning as a head (See Figures 1-2, 8-10, and 18; Page 1, lines 23-40, Pages 2-7, lines 1-40, and Page 8, lines 1-35);

means to deviate gases (combustion gases) to a tangential direction in the discharge valves, thereby generating a torque on the rotors so as to cause a second thrust level on the axis (See Figure 1);

a nozzle (8) immediately downstream of each discharge valve (7), adapted to generate further level tangential thrust by rapid and additional internal expansion of overheated gases deviated in the discharge valve, so as to produce a further torque on the rotor system (See Figure 1).

Chauville further discloses intake valves (4); however, Chauville fails to disclose the location of the intake valves being on the external rotor as being claimed.

Kehl teaches that it is conventional in the rotary engine art, to dispose the intake valves at the top and bottom of the external rotor (See Column 6, lines 57-67).

It would have been obvious to one having ordinary skill in the art at that time the invention was made, to have positioned/disposed the intake valves at the top and bottom of the external rotor, as taught Kehl, to improve the efficiency of the Chauville device.

Additionally, it is the examiner's position that the positioning of the intake valve on the outer rotor in the above claimed positions would have been obvious to one having ordinary skill in the art. More specifically, one having ordinary skill in the art would have positioned the intake valves on the outer rotor, since the intake valves

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would have performed equally well in that location and the mere repositioning of parts not effecting the functioning of the device involves only routine skill in the art, In re Japikse, 86 USPQ 70.

Note that the recitation of "adapted to generate further level tangential thrust by rapid and additional internal expansion of overheated gases deviated in the discharge valve, so as to produce a further torque on the rotor system" is considered as the functional language. The Chauville device discloses all the structural components of an engine system, which are read on those of the instant invention. Therefore, the Chauville system is capable of performing the same desired functions as the instant invention having been claimed in claim 1.

***Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chauville (Pub. Number FR 23 245 870 A), in view of Kehl (Patent Number 3,311,094), and further in view of Blanchard (Pub. Number 3, 955, 540).***

The modified Chauville discloses the invention as recited above, and further disclose a fuel system (412, 416); however, fails to disclose an injector pump, fuel injectors, and their location.

Blanchard teaches that it is conventional in the rotary internal combustion art, to utilize an injection pump (49) and fuel injectors (10) (See Figures 1-4); however Blanchard fails to disclose an injection pump and fuel injectors locating the internal rotor.

It is the examiner's position that the positioning of an injection pump and fuel injectors in the above claimed positions would have been obvious to one having ordinary skill in the art. More specifically, one having ordinary skill in the art would have positioned an injection pump and fuel injectors in the internal rotor. The use of an injection pump and fuel injectors being located in the internal rotor would have provide a compact arrangement for the modified Chauville device.

***Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chauville (Pub. Number FR 23 245 870 A), in view of Kehl (Patent Number 3,311,094), and further in view of Osigwe Godwin Okey et al. (Pub. Number GB 2322913 A).***

The modified Chauville device discloses the invention as recited above, and further discloses three vanes (3). However, fails to disclose four vanes and its structural details.

Osigwe Godwin Okey teaches that it is conventional in the rotary machine art, to utilize four mobile elements (6) mounted on the internal rotor (2), said elements comprising a planet member (6) mounted on the internal rotor (2), which is reciprocated and pushed outwards by a central spring (31), and a satellite member (8a) of a curved shape, fixed at the end of the planet and oscillating around its axis, adapted to act as a compression ring continuously fitting to the inner surface of the external rotor (12) (See Figure 3).

It would has been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized four vanes and its structural details, as taught by Osigwe Godwin Okey, to improve the efficiency of the modified Chauville device.

***Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chauville (Pub. Number FR 23 245 870 A), in view of Kehl (Patent Number 3,311,094) and Osigwe Godwin Okey et al. (Pub. Number GB 2322913 A), further in view of Burcur (Patent Number 5,674,059).***

The modified Chauville device discloses the invention as recited above; however, fails to disclose a stationary seal the internal and external rotors and its structural details.

Burcur teaches that it is conventional in the rotary machine art, to utilize two rotor vanes (90a, 90b); a stationary seal (Not Numbered) between the internal and external rotors, said seal comprising compression rings mounted on the curved convex faces of the internal rotor and on the planet in addition to the satellite rubbing contact (See Figures 1B, Column 1, lines 15-22, Column 9, lines 57-67, Column 10, lines 1-2).

It would has been obvious to one having ordinary skill in the art at that time the invention was made, to have utilized a stationary seal the internal and external rotors and its structural details, as taught by Burcur, to improve the efficiency of the modified Chauville device,



***Allowable Subject Matter***

Claims 21-25 and 28 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

1. Priority:

The applicant's arguments, set forth on Page 14, on the Priority document is persuasive; therefore, applicant is not required to submit it.

2. Information disclosure Statement:

The four foreign patents, cited in the international Search Report, were considered by the examiner, and recited in the Notice of References Cited mailed on May 21, 2007. Additionally, each copy of the four foreign patents were provided and mailed to the applicant on May 21, 2007.

3. Drawings:

The drawings filed on October 22, 2007 are approved to enter.

4. Specification:

The specification filed on November 06, 2007 is not approved for entry.

***Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai-Ba Trieu whose telephone number is (571) 272-4867. The examiner can normally be reached on Monday - Thursday (6:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TTB  
December 18, 2007

A handwritten signature in black ink, appearing to read 'Thai-Ba Trieu', with a long horizontal flourish extending to the right.

Thai-Ba Trieu  
Primary Examiner  
Art Unit 3748

# REPLACEMENT SHEET

1/32

APPROVED: /TTB/  
12/18/2007

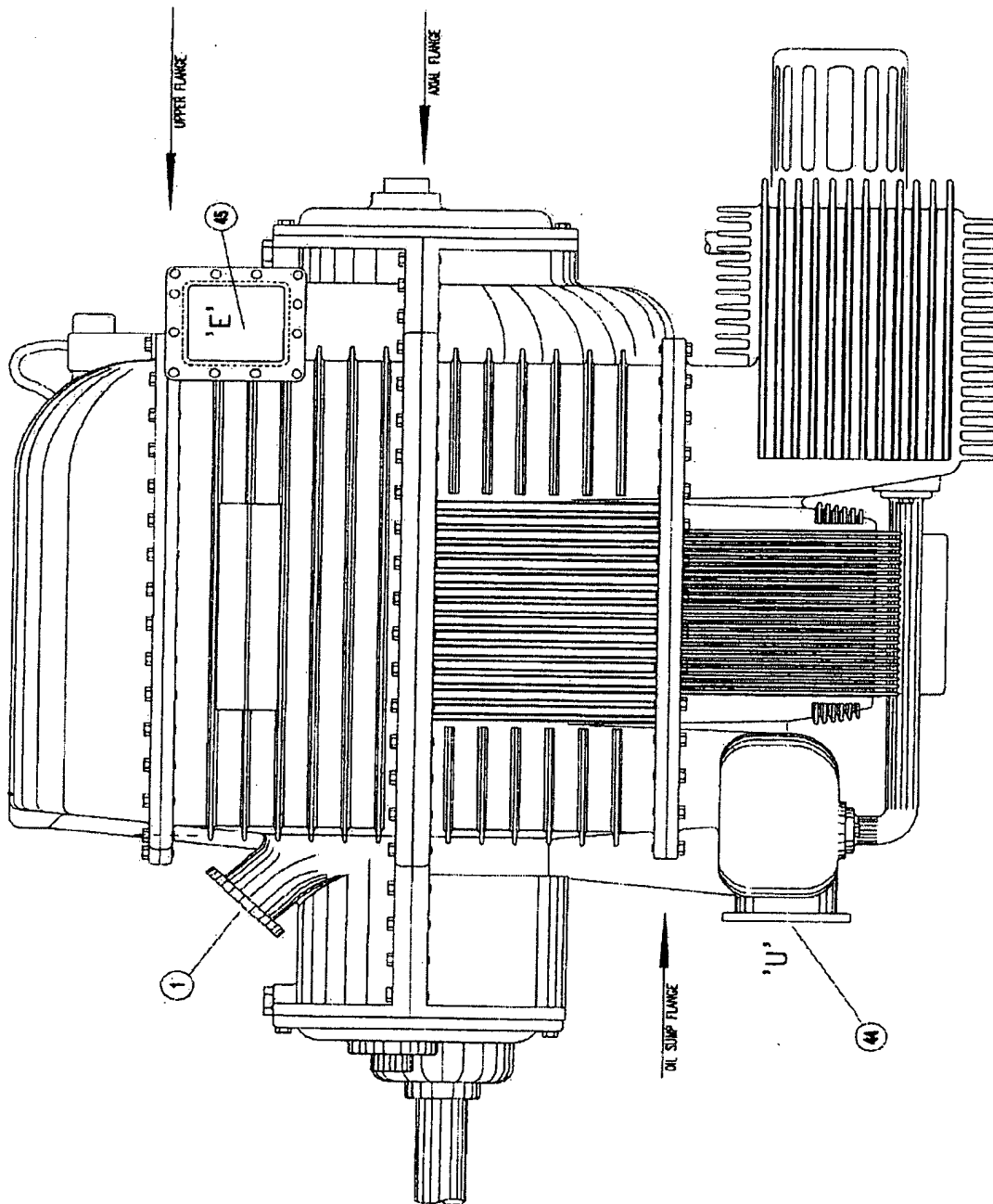


Fig. 1